Remarks

<u>Rejections under 35 U.S.C. 103</u>

In the office action dated 09/01/2009, claims 1, 2, 5-7, 9 and 11 were rejected as being unpatentable over Candau (US 6,033,648).   Claims 1, 2, 5-7, 11 and 12 were rejected as being unpatentable over Lemann et al. (US 6,541,017).

Applicant respectfully submits the 103 rejections in the 9/01/2009 to be improper for the following reasons.

Applicant respectfully submits the 103 rejections do not provide a sufficient factual inquiry of obviousness as stated in *Graham v. John Deere Co*, and further described in the <u>Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR v. Teleflex Inc.*,</u> (Federal Register/Vol. 72, No. 195, pages 57526-57535). In particular, Applicant respectfully submits the above rejections fail to determine the scope and content of the prior art, and subsequently fails to ascertain the differences between the claimed invention and the prior art.

In both 103 rejections, the Examiner asserts that Candau and Lemann establish a *prima facie* case of obviousness;

The prior art does not disclose the exact claimed values, but does overlap. In such instances even a slight overlap in range establishes a *prima facie* case of obviousness. *In re Peterson*, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003). The reference
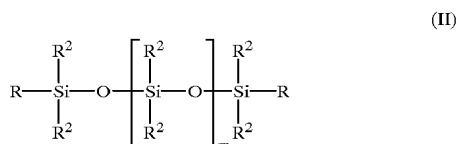
Applicant disagrees, and respectfully submits the neither Candau or Lemann establish *prima facie* obviousness of the present claims.

In both rejections, the office action cites <u>In re Peterson</u>, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003) as precedent for overlapping ranges to establish *prima facie* obviousness. Applicant does not believe the present claims involve "overlapping ranges" in the same manner as *In re Peterson*. Applicant believes *In re Peterson* was concerned with ranges of elements or components in a composition, as discussed in **MPEP 2144.05 Obviousness of Ranges [R-5].** Thus, Applicant assumes the 103 rejections are based on this section of the MPEP, and respectfully traverses.

The present claims are drawn to a composition comprising a hydrocarbyl functional organopolysiloxane. The hydrocarbyl group is defined as R^1 having the formula ~(CH₂)₃OCH₂CH₂OH. The Candau and Lemann references disclose silicone polyether or silicone oxyalkylene substituted silicones where in all cases the oxyalkylene groups are described as being selected from a combination of EO ($-CH_2CH_2O-$) and PO ($-C_3H_6O-$) units. Applicant respectfully submits Candau and Lemann at best disclose a chemical formula that represents a genus of the present hydrocarbyl functional organopolysiloxanes. Applicant submits that the 09/01/2009 103 rejections fail to follow the guidelines established in **MPEP 2144.08** for assessing obviousness of genus/sub-genus/species relationships.

Regarding the rejection based on Candau, Applicant reproduces below the sections believed to be relevant, as quoted by the Examiner. In particular, structure II is shown.

A silicone emulsifier which is very particularly preferred for inclusion in the compositions according to the invention is an oxyalkylene silicone substituted at the α- and ω-positions, having a linear structure, substituted at the two ends of the main chain by oxyalkylene groups bonded to the Si atoms via a hydrocarbon-comprising group. More particularly preferred are the silicones having the the following structural formula (II):

(II)

$$R\!-\!\underset{\underset{R^2}{|}}{\overset{\overset{R^2}{|}}{Si}}\!-\!O\!\left[\underset{\underset{R^2}{|}}{\overset{\overset{R^2}{|}}{Si}}\!-\!O\right]_m\!\underset{\underset{R^2}{|}}{\overset{\overset{R^2}{|}}{Si}}\!-\!R$$

in which R is a radical $-(CH_2)_sO-(C_2H_4O)_t(C_3H_6O)_uR^1$ wherein R^1 is H, CH_3 or CH_2CH_3, s is an integer ranging from 1 to 5, t ranges from 1 to 100 and u ranges from 0 to 50, with the proviso that the (C_2H_4O) and (C_3H_6O) structural units may be distributed randomly or in blocks, the R^2 radicals are each a C_1–C_3 alkyl radical or a phenyl radical, and $5 \geqq m \geqq 300$.

The oxyalkylenated silicones substituted at the α- and ω-positions according to the present invention preferably have the formula (II) in which each of the R^2 radicals is a methyl radical, s ranges from 2 to 4; t ranges from 3 to 100; and m ranges from 50 to 200.

Applicant respectfully submits that in formula (II) of Candau, no less than 5000 (50 x 1000) oxyalkylene species are represented in this formula, not including possibilities or variations for the R^1 endgroup (including these would increase the variations 3x to 15,000). Furthermore, Applicant notes the expressed teachings of Candau to "emulsifiers" and multiple oxyalkylene groups. In particular, Candau preferred structures have a minimum of 3 ethylene oxide units (t, or l as incorrectly shown in the structure, ranges from 3 to 100) . Thus, Applicant respectfully submits that one skilled in the art, upon reading Candau, would not immediately select the presently claimed siloxanes having the defined R^1 hydrocarbyl group. Therefore, considering the size of the genus, and the expressed teachings of Candau, the present claims cannot be considered *prima facie* obvious in view of Candau.

Similar arguments are submitted for Lemann. Lemann's preferred structures are described in column 3, reproduced as follows;

In an even more preferable way, the composition according to the invention comprises the oxyalkylenated silicone substituted at the α and ω positions of following formula:
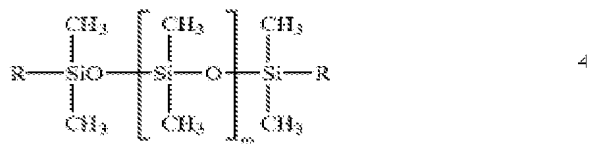
in which:

m≈100,

$R=(CH_2)_3—O—(C_2H_4O)_x(C_3H_6O)_y—CH_3$, where x ranges from 3 to 100 and y ranges from 1 to 50, the ratio by weight of the C_2H_4O number to the C_3H_6O number being approximately 42/58 and the average molecular weight of R ranging from 800 to 1500.

Thus, Lemann teaches preferred oxyalkylenated silicone having at least 3 ethylene oxide units, and further specifies ratios of ethylene oxide to propylene oxide to be 42/58. Such a ratio is impossible in the presently claimed siloxanes. Furthermore, Lemann teaches a preferred molecular weight considerably higher than the hydrocarbyl structures present on the hydrocarbyl functional organopolysiloxanes. Applicant respectfully submits that one skilled in the art, upon reading Lemann, would not immediately select the presently claimed siloxanes having the defined R^1 hydrocarbyl group. Therefore, considering the size of the genus, and the expressed teachings of Lemann, the present claims cannot be considered *prima facie* obvious in view of Lemann.

Obviousness-type Double Patenting Rejection

Claims 1, 2, 5-7, 11 and 12 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 6-13 of co-pending Application No. 10/592714 in view of Ferrari (US 6,251,413).

Application 10/592714 has been abandoned, and therefore the rejection is moot.

Applicant requests that previously withdrawn claims 13 and 14 be rejoined in accordance with 37 CFR 1.104 after prosecution of pending claims. Applicant respectfully submits withdrawn claim 13 and 14 contain all the limitations of the product claims and therefore considered proper for rejoinder.

The present response is being submitted within the six-month statutory period for response to the outstanding Office Action. Applicant authorizes the USPTO to charge deposit account 04-1520 for a two month extension of time, and any other fees that should be necessary to maintain the pendency of the application.

In view of the above, it is respectfully submitted that the claims are in condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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